

**Overview of the modules in the bachelor program Civil Engineering**  
Specialization **"Construction and Structural Design"**

Modules	Pt.	Credit Points (CrP)						
		BE 1	BE 2	BE 3	BE 4	BE 5	BE 6	BE 7
Computer Science in AEC (CAD/BIM)		5						
Building Construction and Degree Program Project Week - Building Construction 1 (4 ECTS) - Partial Module: Degree Program Project Week (SEPW) (1 ECTS)		5						
Materials Sciences		5						
Geometry and Mathematics - Descriptive Geometry (2 ECTS) - Mathematics 1 (3 ECTS)		5						
Principles of Infrastructural Engineering		5						
Structural Concepts 1		5						
<b>SUM</b>		<b>30</b>						
Building Construction 2			5					
Building Physics 1			5					
Mathematics 2			5					
Pavement Design and Materials 1			5					
Structural Concepts 2			5					
Water Resources Engineering 1			5					
<b>SUM</b>			<b>30</b>					
Rail Systems and Railroad Engineering				5				
Soil Mechanics 1				5				
Building Law and Civil Engineering Management - Civil Engineering Management (3 ECTS) - Building Law (2 ECTS)				5				
Project Management 1				5				
Reinforced Concrete Design 1				5				
Structural Concepts 3				5				
<b>SUM</b>				<b>30</b>				
Construction Management and Calculation					5			
Building Physics 2					5			
Foundation Engineering 1					5			
Urban Water Management 1					5			
Reinforced Concrete Design 2					5			
Surveying					5			
<b>SUM</b>					<b>30</b>			
Structural Analysis 1						5		
Foundation Engineering 2						5		
Timber Construction - basics						5		
Solid Construction 1 with Project						5		

Modules	Pt.	Credit Points (CrP)						
		BE 1	BE 2	BE 3	BE 4	BE 5	BE 6	BE 7
Steel Construction 1						5		
Elective Module 1						5		
<b>SUM</b>						<b>30</b>		
Structural Analysis 2							5	
Integrated Project / Structural Design							5	
Solid Construction 2 with Project							5	
Steel Construction 2							5	
Elective Module 2							5	
Elective Module 3							5	
<b>SUM</b>							<b>30</b>	
Practical Vocational Phase								15
Bachelor Thesis								12
Bachelor Thesis: Presentation and Colloquium								3
<b>SUM</b>								<b>30</b>

Legend

	Basics and Theory
	Design and Planning
	Construction and Engineering
	Infrastructure Planning
	Project Management
	Elective Modules

<b>Elective Modules of the specialization "Construction and Structural Design"</b>		<b>Pt.</b>	<b>CrP</b>
Area Project Management	Knowledge Relating to Occupational Safety and Health		5
	Tendering, Awarding of Contracts + Accounting		5
	Building Construction Processes 1		5
	Construction Management Project		5
	Integrative Project		5
	EDV – Application in Construction Management and Project Management		5
Area Infrastructure Planning	Applied Water Management		5
	Computer Application of Traffic Engineering		5
	Geographical Information Systems		5
	Infrastructure Planning Project		5
	Sanitary Engineering 2		5
	Highway Design and Materials 2		5
	Transport Planning and Public Transport Systems		5
	Transport Engineering		5
	Water Resources Management 2: Engineering Hydrology and Water Supply		5
Area Construction	Introduction to Bridge Engineering		5
	Timber Construction Project		5
	Tunnel Construction and Pipe Jacking		5
Comprehensive Modules	Computer Science in AEC Project		5
	Building Construction 5 (TGA)		5
	Energy Efficient Building		5
	European Architecture and Civil Engineering		5
	Resource-saving design		5
	Urban Planning 1 / Strategic Environmental Assessment (SEA) and Environmental Impact Assessment (EIA)		5
	Elective Module (Department Marketing and Communication)		5
	Elective Module (THM)		5



### Bachelor Civil Engineering specialization “Construction and Structural Design”

1 <sup>st</sup> Semester	2 <sup>nd</sup> Semester	3 <sup>rd</sup> Semester	4 <sup>th</sup> Semester	5 <sup>th</sup> Semester	6 <sup>th</sup> Semester	7 <sup>th</sup> Semester
Computer Science in AEC (CAD/BIM) 5 ECTS	Building Physics 1 5 ECTS	Reinforced Concrete Design 1 5 ECTS	Building Physics 2 5 ECTS	Elective Module 1 5 ECTS	Elective Module2 5 ECTS	Practical Vocational Phase 15 ECTS
Building Construction 1 4 ECTS SEPW 1 ECTS	Building Construction 2 5 ECTS	Soil Mechanics 1 5 ECTS	Surveying 5 ECTS	Timber Construction - basics 5 ECTS	Elective Module3 5 ECTS	
Structural Concepts 1 5 ECTS	Structural Concepts 2 5 ECTS	Structural Concepts 3 5 ECTS	Foundation Engineering 1 5 ECTS	Structural Analysis 1 5 ECTS	Structural Analysis 2 5 ECTS	
Mathematics 1 3 ECTS Descriptive Geometry 2 ECTS	Mathematics 2 5 ECTS	Civil Engineering Management 3 ECTS Building Law 2 ECTS	Reinforced Concrete Design 2 5 ECTS	Foundation Engineering 2 5 ECTS	Integrated Project / Structural Design 5 ECTS	Bachelor Thesis with Presentation and Colloquium 15 ECTS
Materials Sciences 5 ECTS	Pavement Design and Materials 1 5 ECTS	Project Management 1 5 ECTS	Construction Management and Calculation 5 ECTS	Solid Construction 1 with Project 5 ECTS	Solid Construction 2 with Project 5 ECTS	
Principles of Infrastructural Engineering 5 ECTS	Water Resources Engineering 1 5 ECTS	Rail Systems and Railroad Engineering 5 ECTS	Urban Water Management 1 5 ECTS	Steel Construction 1 5 ECTS	Steel Construction 2 5 ECTS	

#### Legend

Basics and Theory	Construction and Engineering	Infrastructure Planning	Project Management	Elective Modules
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